STATE OF WISCONSIN
Local Government Property Insurance Fund

E2

Water Supply

Policyholder Name	Policy Number
Site Name	Site Number
Building Name	Building Number
Address	
City	Zip Code

Prepared by	Date
Telephone	

*Design Flow of Plant [ ] MGD (millions gallon per day)

Year Built
Replacement Value

(See reverse side for Codes/Unit of Measure/Parameter)

Code	Process Description	*Parameter	*Quantity

***Required Field**

CODE	Process Description	Possible Components	Parameters Required for Modeling Cost
WATER SOURCE			
R1	Well Untreated	Siting, drilling and developing a well to completion; including installation of a pump and appurtenances such as sample tap, meter, air release, pressure gauge, shut-off valve, electrical controls and limited discharge piping.	Design Capacity in MGD.
R5	Surface Water Intake	Intake structure, piping, valves; does not include pumps or impoundment structures. May include a wet well (small storage tank for raw water to be pumped to the treatment plant). These projects cannot be for reservoirs or dams.	Design Capacity in MGD.
R7	Reservoir	An excavation or other construction (such as berms) to create a raw water holding facility other than a presedimentation basin (T12) or percolation basin (T42).	Basin capacity in MG.
R8	Spring Collector	Spring box or other collection device, including overflow, meter, sample tap, valves and limited piping connection to a transmission main. Assume these are gravity-fed and would not include pumps.	Design Capacity in MGD.
R11	Aquifer Storage and Recovery Well	Wells used to inject water into an aquifer for later recovery and use as a source of drinking water. These wells may also be used for aquifer recharge without subsequent recovery from the same wellhead. Components may include well construction, pump, appurtenances and limited transmission main.	Design Capacity in MGD.
TREATMENT - DISINFECTION			
T1	Chlorination	Gas or hypochlorite systems with chemical mixing and injection systems, safety-related components. Does not include gas scrubber	Capacity of the water to be treated in MGD.
T2	Chloramination	Chemical mixing and injection systems, safety-related components. Does not include gas scrubber.	Capacity of the water to be treated in MGD.
T3	Chlorine Dioxide	Chemical mixing and injection systems, safety-related components.	Capacity of the water to be treated in MGD.
T4	Ozonation	Ozone generation and injection equipment, off-gas controls and related safety equipment.	Capacity of the water to be treated in MGD.
T5	Mixed Oxidant Type Equipment	Disinfectant generation equipment, injection system, safety components	Capacity of the water to be treated in MGD.
T6	Ultraviolet Disinfection	UV lights, pipes, valves, controls and intensity monitors	Capacity of the water to be treated in MGD.
T7	Contact Basin for CT	Baffled clearwell-type contact tank with overflow, drain and access (if appropriate); or serpentine piping for contact time. Includes valves.	Volume in MG
T8	De-chlorination of Treated water	Chemical mixing and injection system, on-line chlorine residual monitoring equipment.	Capacity of the water to be treated in MGD.
T9	Chlorine Gas Scrubber	Gas scrubber equipment and monitoring equipment with alarms.	Capacity of the water to be treated in MGD.
TREATMENT - FILTRATION			
T10	Conventional Filter Plant	Complete conventional plant with flocculation, sedimentation, filtration, waste handling and the building. This code will also be used for systems using contact adsorption clarifier (CAC) technologies for the flocculation/sedimentation process.	Design Capacity in MGD.
T11	Direct or In-line Filter Plant	Complete direct or in-line filtration plant, including the building. This code is also used for pressure filtration systems. Includes all raw water pumps, chemicals and mixing, unit processes, clearwell, waste handling and process control system.	Design Capacity in MGD.
T12	Pre-sedimentation Basin	Presedimentation basin, including any required berms, walls, chemical feed equipment and on-site sludge removal equipment. Confirm these are not dams or reservoirs.	Capacity of the basin in MG.
T13	Chemical Feed	Chemical handling equipment, mixers, injection systems and limited piping. Includes in-line mixers, chemical injectors, chemical diffusers and other rapid-mix technologies.	Capacity of the water to be treated in MGD.
T14	Sedimentation/Flocculation	Sedimentation basin (including lamella plates, tube settlers, etc.), flocculation basin with flocculators, sludge removal and necessary valves. Includes a Contact Adsorption Clarifier unit process.	Design Capacity in MGD.
T15	Filters	Complete filters, including media, air scour and/or surface wash, underdrain, effluent troughs and backwash equipment	Design Capacity in MGD.
T16	Slow Sand Filter Plant	Complete plant including filters and building	Design Capacity in MGD.
T17	Diatomaceous Earth Filters	Complete plant and building including chemical and body-feed equipment, mixing and injection, filter, backwash equipment and waste handling	Design Capacity in MGD.

T18	Membrane Technology for Particulate Removal	Complete Plant including Pre-filtration, membrane filtration equipment, waste-stream handling, and monitoring equipment and controls. Also may include caustic and other cleaning-chemical feed components.	Design Capacity in MGD.
T19	Cartridge or Bag Filtration Plant	Complete plant including connective piping, filter housing, building and monitoring equipment	Design Capacity in MGD.
T20	Streaming Current Monitors	On-line monitor with or without chemical feedback loop.	Number of monitors.
T21	Particle Counters	Bench-top or in-line particle counter	Number of counters.
T22	Turbidity Meters	Bench-top or in-line meter, recording charts and limited piping for installation.	Number of meters.

TREATMENT - OTHER TREATMENT NEEDS

T30	Powdered Activated Carbon	PAC handling facility, chemical feeders and safety equipment	Capacity of the water to be treated in MGD.
T31	Granular Activated Carbon	GAC filter media with or without underdrains, backwash system, air scour or surface wash and effluent troughs. Does not include regeneration facility. Includes GAC caps for filters and carbon columns.	Capacity of the water to be treated in MGD.
T32	Sequestering for Iron and/or Manganese	Chemical mixing and feed system, injection system. Does not include disinfection. Use for up to 1 ppm iron. Above 1 ppm, use code T33 for manganese green sand.	Capacity of the water to be treated in MGD.
T33	Manganese Green Sand Filtration	Complete plant including waste-stream handling, building and monitoring equipment, and chemical feed.	Design Capacity in MGD.
T34	Ion Exchange	Complete ion exchange treatment plant including final disinfection and building	Design Capacity in MGD.
T35	Lime Softening	Complete lime softening plant including building. May be a single technology for iron, manganese and hardness removal.	Design Capacity in MGD.
T36	Reverse Osmosis	Complete plant including pre-filtration, membrane filtration equipment, waste-stream handling, building and monitoring equipment and controls.	Design Capacity in MGD.
T37	Electro-dialysis	Complete Electro-dialysis plant with building.	Design Capacity in MGD.
T38	Aeration	Complete packed tower or counter-current tower aeration facility including disinfection, or cascading-type tray aeration.	Design Capacity in MGD.
T39	Activated Alumina	Complete activated alumina plant including disinfection and building	Design Capacity in MGD.
T40	Corrosion Control	Chemical mixing and injection system. Does not include disinfection.	Capacity of water to be treated in MGD.
T41	Waste Handling and Treatment, Mechanical	Mechanical treatment plant including sludge handling/drying equipment complete.	Capacity of plant in MGD.
T42	Waste Handling and Treatment, Non-Mechanical	Ponds or lagoons for storing, recycling and/or evaporating process wastewater.	Capacity of plant in MGD.
T43	Waste Handling and Treatment, Connection to a Sanitary Sewer	Lift station and force main or gravity main to sanitary sewer.	Length of pipe (in feet) and diameter (in inches)
T44	Zebra Mussel Control	Chemical mixing and injection of oxidant at raw water intake.	Capacity of the water to be treated in MGD.
T46	Fluoride Addition	Chemical mixing and injection system. Does not include disinfection.	Capacity of the water to be treated in MGD.

PUMPING STATION AND PUMPS

P1	Raw Water Pumps	Pump and electrical controls	Capacity in MGD.
P2	Finished Water Pumps	Pump and electrical controls	Capacity in MGD.
P4	Booster Pump Station	Includes clearwell, pump and building or in-line booster station and building. Use pump code P2 if the project is for a single booster pump.	Total capacity of all pumps (incl standby equipment) in MGD.
P5	Pump Controls/Telemetry	Basic telemetry system of telephone-wire based signals or radio signal controls. Does not include SCADA systems (Use W2 for SCADA)	Population serviced by the system.

OTHER INFRASTRUCTURE NEEDS

W2	Computer and Automation Costs (SCADA)	Computer control systems and SCADA control systems. Does not include computer software.	System design capacity in MGD.
W3	Chemical Storage Tank	Tank only. Use other codes as needed for chemical mixing and injection systems.	Volume in MG